1.	Field of study	Computer Science
2.	Academic year of entry	2017/2018 (summer term), 2018/2019 (summer term)
3.	Level of qualifications/degree	second-cycle studies
4.	Degree profile	general academic
5.	Mode of study	full-time

Module: Specialized systems of data visualization

Module code: 08-IN-GWK-S2-SSWD

1. Number of the ECTS credits: 2

2. Learning outcomes of the module

code	description	learning outcomes of the programme	level of competence (scale 1-5)
SSWD -K_7	Student is able to work individually and in a team.	K_2_A_I_K03	1
SSWD -K_8	Student can think and act in a creative way	K_2_A_I_K05	1
SSWD -U_4	A student can implement a scenario of graphic presentation.	K_2_A_I_U13 K_2_A_I_U21	1 1
SSWD -U_5	The student is able to obtain information on making graphic presentations from literature and other sources. He can effectively use different methods of data mining and use of database resources.	K_2_A_I_U01 K_2_A_I_U22	1 1
SSWD -U_6	The student is able to prepare and present the application of the realized task of the project.	K_2_A_I_U02 K_2_A_I_U03 K_2_A_I_U04	1 1 1
SSWD -W_1	Student knows and understands the concept of raster and vector graphics and algorithms used in raster and vector graphics. Student has knowledge of network information systems in application for data visualization.	K_2_A_I_W01 K_2_A_I_W19	1 1
SSWD -W_2	The student knows and understands the purpose of the basic elements of making a graphic presentation.	K_2_A_I_W02	1
SSWD -W_3	Student knows and understands the basic principles of making a graphic presentation.	K_2_A_I_W02	1

3. Module description

Description	Introduction to the graphic presentation systems. Presentation of the basic principles of vector and raster graphics of data visualisation. As part of the classes, students should prepare projects in teams and present the results of their work as an application.

Prerequisites	

4. Assessment of the learning outcomes of the module

code	type	description	learning outcomes of the module
SSWD _w_1	Project	Introduction to the graphic presentation systems. Presentation of the basic principles of vector and raster graphics of data visualisation. As part of the classes, students should prepare projects in teams and present the results of their work as an application.	SSWD -K_7, SSWD -K_8, SSWD -U_4, SSWD -U_5, SSWD -U_6, SSWD -W_1, SSWD -W_2, SSWD -W_3
SSWD _w_2	Report	Description of the realized project.	SSWD -K_7, SSWD -K_8, SSWD -U_4, SSWD -W_1, SSWD -W_2, SSWD -W_3

5. Forms of teaching

code	form of teaching			required hours of student's own work		assessment of the learning outcomes of the module
	type	description (including teaching methods)	number of hours	description	number of hours	
SSWD _fs_1	lecture	Presenting educational content in verbal form with use of content visualization. Focusing on conceptually complex material and indication of sources. Content illustration on examples.	10	Familiarizing with the lecture subject matter using existing methods packages: textbooks, scripts, websites, etc.	5	SSWD _w_1, SSWD _w_2
SSWD _fs_2	laboratory classes	Detailed student preparation to use development environment and graphic interface components. Solving programming tasks indicating proceedings methodology and sequence of works. Designing base program structure referring to the analyzed issue.	20	Solving tasks of subsequent issues together with analysis of the already existing solutions. Revision of the material presented during lectures and exercises during laboratory classes. Get acquainted with the project topics. The project realization in the team. A description of the project preparation.	25	SSWD _w_1, SSWD _w_2